

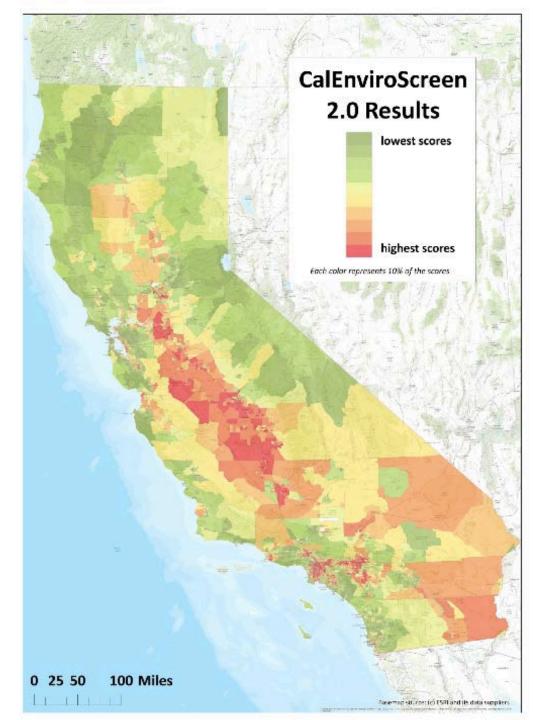
#### Cal Enviro Screen 2.0

### Cal EPA Office of Environmental Health Hazard Assessment

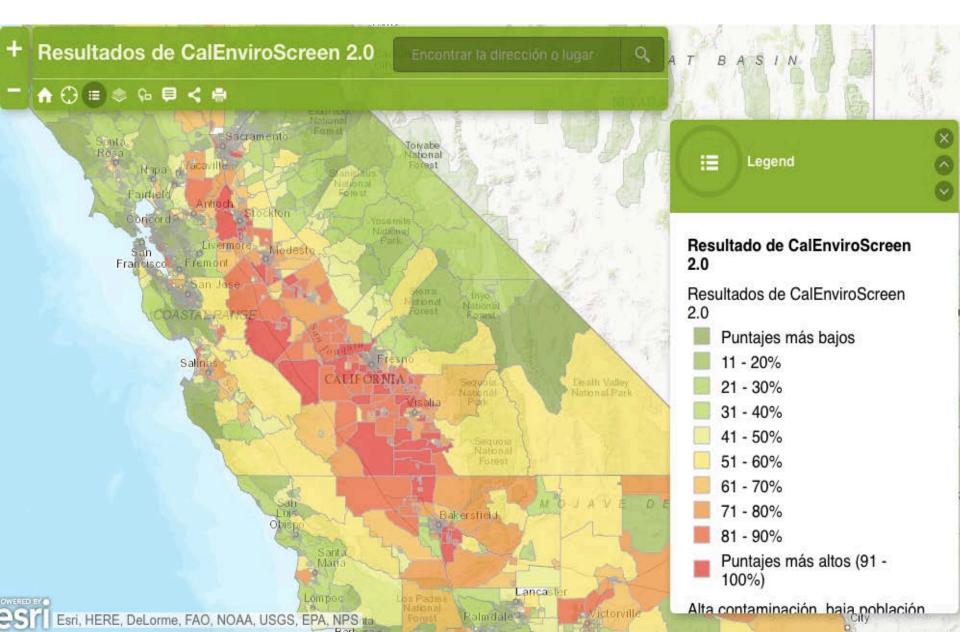
Age **Asthma** Low Birth Weight Low Education Linguistic Isolation Poverty Unemployment

Groundwater Hazardous Waste Impaired Waters Solid Waste Ozone PM2.5 Diesel **Drinking Water** Pesticides **Toxic Releases** Traffic

Cleanups

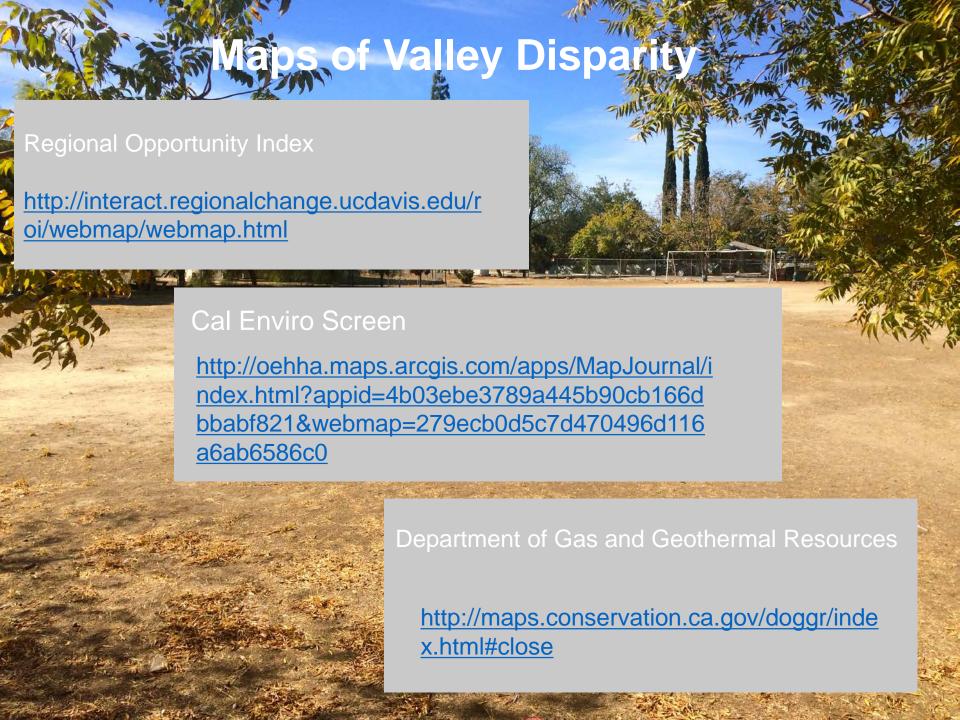


The San Joaquin Valley: Kings, Merced, Fresno, Stanislaus, Madera, Tulare, Kern

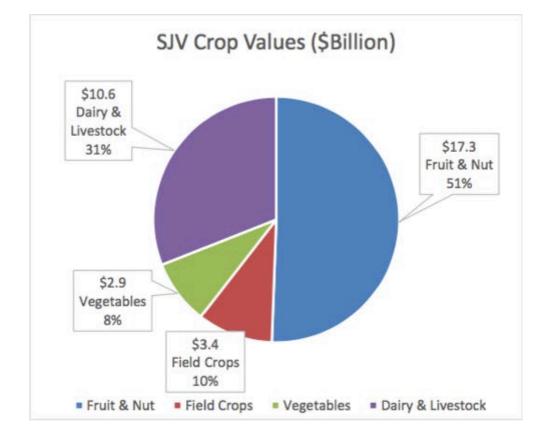


## Public Health Challenges in Disadvantaged Communities (Colonias)

- Lack of Access to Water and Sewer Services
  - Safe potable drinking water
  - Wastewater infrastructure
  - Plumbing
- Housing
  - Often built with materials on hand
  - Often built by hand without use of an engineer
  - Lack of fire protection
- Personal Health and Disease Transmission
  - Dilapidated homes lead to asthma and other respiratory illness
  - Lack of appropriate drainage systems leads to disease spread
  - Lack of access to fresh foods leads to diabetes, obesity and chronic disease
- Places of employment
  - Agricultural work
  - Packing and Processing
  - Industry (Oil, Gas and Mining)
- Lack of governance
  - Poor emergency response
  - Lack of fire and police protection
  - Adversarial water districts and utilities districts
  - Language access in case of emergency







- -SJV agriculture generated \$35.6 billion in farm-gate receipts in 2013 on 6.3 million acres
- -Dairy industry alone accounts for approximately 25% of the valley ag economy
- -The SJV's 25,000 farms are led by fewer than 2,000 people

### Water Access Disparity

- -\$39 billion dollar agricultural economy based in the central Valley
- -Intensive fertilizer and pesticide application and mega dairies has severely impacted aquifers
- -95% of residential water sources in the San Joaquin Valley are ground water sources
  - -nitrate
  - -arsenic
  - -heavy metals
  - -Coliform bacteria
  - -dibromochloropropane
  - 1,2,3 TCP
  - -trihalomethanes
  - -uranium



Source: www.wwd.gov





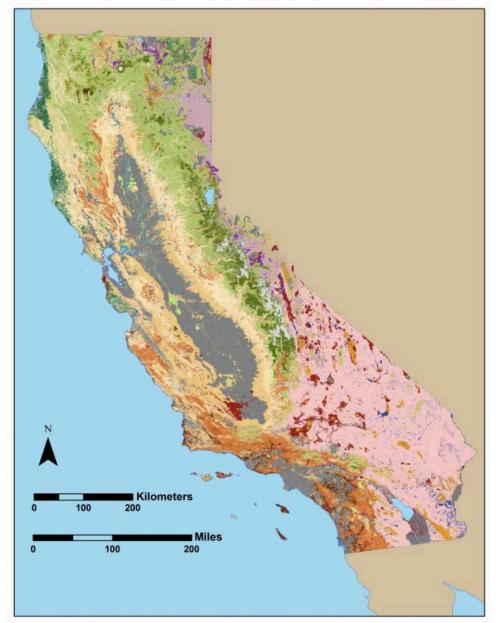












A climate change vulnerability assessment of California's terrestrial vegetation . Information Center for the Environment University of California, Davis January 2016



Figure 10. Macrogroup Map Legend. The legend for the macrogroup map.

Figure 9. Statewide Vegetation (Macrogroup) Map. The statewide vegetation map used for the climate exposure analysis in this report. This image portrays the distribution of macrogroups which are analyzed. Note that some areas in the central valley and urban centers are in grey, indicating zones that were excluded from this analysis. The natural vegetation in the central valley that is mapped is visible as small extents of vegetation.

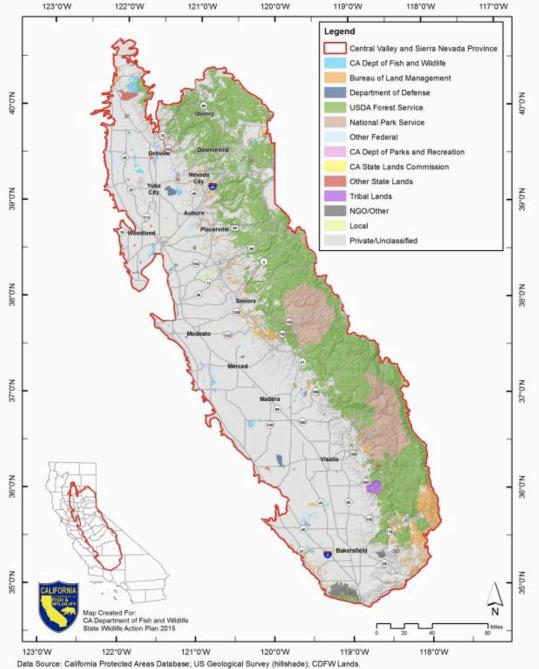


Figure 5.4-1 Land Ownership of the Central Valley and Sierra Nevada Province

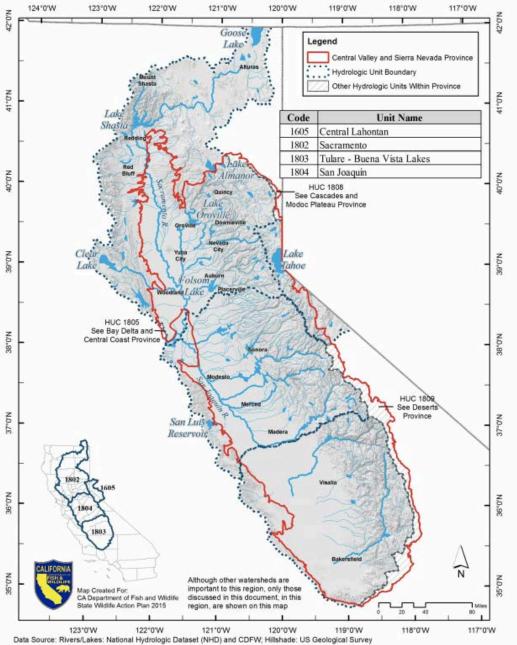


Figure 5.4-3 Hydrologic Units of the Central Valley and Sierra Nevada Province



















# AGROECOLOGY AGRICULTURE THAT PROTECTS:

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